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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,245	01/08/2004	Peter J. Fellingham	86745WRZ	6717

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EXAMINER

CHOI, HAN S

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/753,245

Applicant(s)

FELLINGHAM ET AL.

Examiner

Han S. Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-24 is/are allowed.
- 6) ☒ Claim(s) 1, 4-8, 10-13 and 15-18 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 9, 14 and 25-28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/8/04, 6/20/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Meyers et al (US Pat. 6,463,674).

Meyers et al. discloses a drying system comprising:

Referring to claim 1:

- a plenum [115] of in [Col. 8, Line 52]
- a gas source [116] of Fig. 1 in fluid communication with the plenum [15] in [Col. 4, Lines 5-7].
- a gas flow guide [114] of Fig. 1 in [Col. 4, Lines 7-9] operable to direct gas flow provided by the gas source [116] in [Col. 4, Lines 22-27].
- a support [130] having a surface in [Col. 4, Lines 16-18], at least a portion of the surface [40] being heated in Fig. 2, wherein the gas flow guide [114] of Fig. 2 is positioned to direct gas flow at least partially toward the heated surface [40] of the support [130] in [Col. 5, Lines 31-43]. It is inherent that both the gas flow and the heated surface have temperatures. It is inherently given that the ambient temperature of the airflow that is initially blown by the fan is cooler than the

temperature of the heated surface (the initially blown air flow by the fan becomes warmer as it passes through the heated resistor, therefore heating the surface) as shown in Fig. 2.

Referring to claim 4:

- a support [130] having a surface [40] wherein the gas flow guide [114] is positioned to create an angle relative to a plane tangential to the surface of the support [130] in [Col. 5, Lines 18-26] as shown in Fig. 2.

Referring to claim 6:

- a support [130] having a surface [40] and a width dimension in shown in Fig. 2 and a restrictor plate [112] positioned between the gas flow guide [114] and the plenum [115] as shown in Fig. 2, the restrictor plate [112] having at least one perforation [154] sized to distribute gas flow over the surface of the support [130] in the width dimension in [Col. 7, Lines 27-29] and [Col. 8, Lines 10-11] where the restrictor plate is the air impingement plate covering the width of the paper.

Referring to claim 7:

- a restrictor plate [112] positioned between the gas flow guide [112] and the plenum [115] shown in Fig. 2, the restrictor plate [112] having at least one perforation [154] sized to limit gas flow from the gas flow generated by the gas source [116] to the gas flow guide [114] in [Col. 7, Lines 27-29] as shown in Fig. 2.

Referring to claim 8:

- Wherein at least one perforation [154] of the restrictor plate [112] forms a pattern of perforations [154] through the restrictor plate [112] in [Col. 7, Lines 29-31].

Referring to claim 10:

- the gas source [116] is positioned within the plenum [115] as shown in Fig. 2.

Referring to claim 11:

- the gas flow generator includes a fan [116] in [Col. 4, Lines 6-8] as shown in Fig. 2.

Referring to claim 12:

- The gas source [116] is positioned remotely relative to the plenum [115] and is in fluid communication with the plenum [115] in [Col. 4, Lines 6-8].

Referring to claim 13:

- a cover [107] positioned at least partially about the plenum [115], the cover [107] including a gas inlet [118] and a gas outlet [104] in [Col. 4, Lines 12-15] as shown in Fig. 1.

Referring to claim 15:

- a portion of the surface [130] defining a media travel path in [Col. 5, Line 38-40]. Heating the portions of the surface [40] defining the media travel path in [Col. 5 Lines 31-43]. Directing a gas flow at least partial toward the surface and at least partially along a direction of media travel in as shown in Fig. 3 by the arrows depicting gas flow.

Referring to claims 16 and 17:

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- A method wherein directing the gas flow at least partially toward the surface [30] includes directing the gas flow to a location of the surface downstream from a location of the surface where heating begins, downstream being relative to the direction of media travel as demonstrated in Fig. 3 where arrows represent gas flow show the direction of gas flow entering the dryer [100] the same direction as the direction of the media [132]. Gas flow arrows from the upper plenum [117] show gas flow being directed away from the heated area towards the exit. It is inherent that both the gas flow and the heated surface have temperatures. It is inherently given that the ambient temperature of the airflow that is initially blown by the fan is cooler than the temperature of the heated surface (the initially blown air flow by the fan becomes warmer as it passes through the heated resistor, therefore heating the surface) as shown in Fig. 2.

Referring to claim 18:

- gas flow is at an ambient temperature according to Fig. 3 where arrows representing gas flow external the dryer [100] are at a temperature of the make-up air which is at a temperature lower than the heated air in [Col. 5, Lines 65-67] and [Col. 6, Lines 1-3].

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Myers et al (US Pat. 6,463,674).

Myers et al. discloses the claimed invention except for having an angle approximately 45°. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have an angle approximately 45° to further control air drying intensity as taught in [Col. 6, Lines 35-36] and Myers et al. further specifies that the gas flow guide [114] may be tilted at an angle other than 180° with respect to the plane of the surface or path of the recording medium [130] for the purpose of *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Allowable Subject Matter

5. Claims 19, 20, 21, 22, 23, and 24 are allowed.
6. Claims 2, 3, 9, 14, 25, 26, 27, and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Reasons for allowance of the aforementioned claims are based upon the absence of prior art regarding the following further limitations from claims 2, 9, 14, 25, and 28.

The following claim limitations are absent in prior art. Claim 2 specifies a gas flow guide including a fin. Claim 9 specifies a nozzle plate positioned between the restrictor plate and the gas flow guide, having at least one perforation sized to direct gas flow to the gas flow guide. Claim 14 specifies a plurality of fins direct gas toward the

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surface from a location spaced apart from the origin of the heated surface. Claim 25 specifies the heated surface of the support is heated by a heater positioned spaced apart from the support, the heater being operatively associated with the support through a conductive path operable to conduct heat from the heater to the support. Claim 28 specifies heating the portions of the surface defining the media travel path includes conducting heat from a source of heat through a heat conductive extension to the portions of the surface defining the media travel path.

Claims 3, 26, and 27 are allowable because of its dependency to claims 2, 25, and 26.

Response to Arguments

7. Applicant's arguments filed 2/23/06 have been fully considered but they are not persuasive.

Regarding arguments to claims 1 and 16:

The applicant states in page 10 of the applicant's arguments that the Myers et al. ('674) reference does not disclose a dryer [100] including a heat source that directly heats platen [130] and therefore would lead one of ordinary skill in the art to conclude that the temperature of the heated air produced by heating element [110] is warmer than the temperature of the platen [130]. Likewise, the applicant states that one of ordinary skill in the art would draw the same conclusion even when it is assumed that some indirect heating of platen [130] occurs within air drying section [40] of dryer [100].

With respect to the applicant's arguments, a temperature of either the heated surface or the gas flow is inherently taught by the Myers et al. ('674) reference. A temperature exists in any object. A temperature is a measurement or characteristic that must be specified in degrees before any weight can be given as a limitation of claims. Furthermore, the temperature of the gas flow is cooler than the temperature of the heated surface in the Myers et al. ('674) reference. The ambient air flow that initially passes through the fan is cooler than the air flow at the point after passing the resistor which heats the air and the surface gets heated by the heated air flow. The applicant must be more specific and detailed on its explanation of how and why the temperature of the gas flow is cooler than the temperature of the heated surface. The amended claims 1 and 16 do not describe how the heated surface is heated, such as a heater located beneath the surface as recited in claim 25, which would allow it to overcome the prior art of Myers et al. ('674) wherein the heated air flow is used to heat the surface.

Pertinent Prior Art

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art references (US Pat. 5,399,039; US Pat. 6,059,406) cited in PTO 892 form show elements that are deemed to be relevant to the present invention. These references should be reviewed.

Conclusion

9. Applicant's amendment, which made changes to the base claims, necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Han S. Choi whose telephone number is (571) 272-8350. The examiner can normally be reached on Monday - Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HSC
4/18/06


HAI PHAM
PRIMARY EXAMINER